

**Environmental Stewardship's
Comments to Lost Pines GCD Board of Directors
Regarding Revised Desired Future Condition
November 8, 2021**

Environmental Stewardship requests that the Board vote to approve desired future conditions for the Simsboro Aquifer of not more than 30,303 acre-feet per year (AFY) of pumping. Since drawdown varies depending on the pumping file used, drawdown is expected to fall within a range around the 183 feet as predicted from GAM Run S-15. We have provided you with the handout that was in your briefing packet that explains the basis of our request.

What we are requesting is consistent with ensuring that the municipal wells in the district that have been permitted for many years and are currently pumping at about 26% of their currently permitted values are adequately covered during the next DFC cycle of review and beyond.

Furthermore, this level of pumping is within the range of pumping that will be minimally protective of surface waters such as the Colorado River, its tributaries, seeps and springs.

There are three primary ways that this board can protect both our municipal, domestic and irrigation supplies while likewise protecting the surface waters in the Lost Pines District.

1. By fully considering the factors that impact on surface waters, as well as existing municipal and domestic wells prior to making permitting decisions.
2. By fully considering the factors that impact on surface waters, and existing municipal and domestic wells prior to adopting Desired Future Conditions (DFCs) -- the matter currently under consideration; and
3. By adopting specific DFCs that are targeted at protecting surface water resources in specific ways.

To give you another viewpoint on the predicted impacts of groundwater pumping in Bastrop county on surface waters, I want to share what Dr. William J. Hutchison had to say. Dr. Hutchison is currently an expert witness for the State of Texas in Texas vs. Mexico and Colorado in the United States Supreme Court on these same groundwater pumping impacts on surface water related to the Rio Grande River in New Mexico. Among his many other credentials, he is a consultant for our neighboring GMA-11, and **Dr. Hutchison has also been a consultant for Lost Pines on these same matters pertaining to the potential impacts of groundwater pumping on surface waters, including the Colorado River in Bastrop County, Texas¹.**

Quoting from Dr. Hutchison²:

"From a regional groundwater perspective, the [new] model **does show a reduction in groundwater discharge to surface water under the base case in Bastrop County**, and shows that [a] scenario that adds [...] pumping would eventually result in **a condition where surface water in Bastrop County would recharge the groundwater system**". Emphasis added

"As developed in this report these water budgets demonstrate that about 94 percent of the variation in groundwater storage change from 1930 to 2010 is attributable to variation in recharge. The most significant finding from the comparison of the two predictive scenarios (i.e.

¹ Rice email and attached documents November 4, 2021. Confirming that Dr. Hutchison used a pumping file that is essentially equivalent to DFCRun3. "In 2019 compared LPGCD Simsboro pumping in one of the pumping files that S. Young submitted with his testimony (ps12.gma12. [Proposed].wel), and in A. Donnelly's DFCRun3.wel file. There are minor differences, but they are essentially the same. My comparisons are in the two attached Excel files."

² Hutchison, William J. July 25, 2019. Expert Report for the General Manager of the Lost Pines Groundwater Conservation District.

future water budgets from 2011 to 2070) is the sources of the proposed [...] pumping[.] "

"The groundwater budget comparison suggests that about 46 percent of the pumping will be sourced from reduced baseflow to the surface water system in Bastrop County, About 35 percent of the pumping will be sourced from reduced groundwater storage, and about 16 percent will be sourced from decreased subsurface outflow to Lee County," Emphasis added

"The results highlight the fact that groundwater pumping results in three impacts: 1) reduced storage (manifested by reduced groundwater levels), 2) induced inflow from surrounding areas and from surface water, and 3) ***reduced natural outflow to surface water and/or subsurface outflow to surrounding area.***" Emphasis added

"Based on the groundwater budget for Bastrop County, the two largest sources of the proposed pumped groundwater are ***reduction in baseflow to surface water*** and storage decline." Emphasis added

"It is reasonable to qualitatively conclude, based on the model results and my experience, that surface water impacts may be possible. It is unreasonable to summarily dismiss the potential for impact."
Emphasis added

There is no dispute that increased pumping will result in groundwater level reductions that alter the surface water-groundwater relationship. However, until better data exist to calibrate the model under conditions of increased pumping, it is not possible to rely on precise quantitative estimates. Accordingly, a conservative consideration of modeling results is warranted.

These impacts are estimates based on the best available science, rather than precise predictions. The impact upon surface waters, and groundwater levels, could be worse. To ensure that groundwater and surface water resources are protected, these potentials reflected by the best available science should be weighed conservatively by the District. **That conservative approach warrants adoption of desired future conditions for the Simsboro Aquifer of not more than 30,303 acre-feet per year (AFY) of pumping.**

As Dr. Hutchison concluded "it is unreasonable to summarily dismiss the potential for impacts [on surface waters]."

As such, it is both reasonable and prudent that the Lost Pines Board take conservative actions to mitigate such potential impacts in setting desired future conditions for the District while, and until, surface water impact data have been collected to quantify and verify the impacts that are predicted to be experienced.

Respectfully,

Steve Box, Board President
Environmental Stewardship